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| 10/646,734 | 08/25/2003 | Klaus Moeller | 23390-000121/US | 1155 |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/646,734

Applicant(s)

MOELLER ET AL.

Examiner

LUN-SEE LAO

Art Unit

2614

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 July 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 108-119 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 108-119 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SG/US)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Introduction

1. This action is in response to the remarks filed on 07-24-2008. Claims 1-107 have been cancelled. Claims 108-119 are pending.

Specification

2. The amendment filed 10-31-2007 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: "at least some of said sound masking units including a digital processor configured for a sound masking signal generator" and "said zones include one or more of a sound masking zone, a non-masking zone, a timer zone, and a keypad zone". Claims 113 and 115 recite "said zones include one or more of a sound masking zone, a non-masking zone, a timer zone, and a keypad zone ". The specification teaches on page 6 and 9, paragraph [0064], paragraph [0070] and paragraph [0085]-[0087] which applicant indicated or a masking zone and a timer zone. The specification does not disclose a non-masking zone and a keypad zone as claimed. The examiner has interpreted the claim as including one or more of a sound masking zone and a timer zone. .

Applicant is required to cancel the new matter in the reply to this Office Action.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 113 and 115 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claim 115 recited "said zones include one or more of a sound masking zone, a non-masking zone, a timer zone, and a keypad zone". However, the specification does not clearly disclose the "said zones include one or more of a sound masking zone, a non-masking zone, a timer zone, and a keypad zone" Will be performed. Claims 113 and 115 recite "said zones include one or more of a sound masking zone, a non-masking zone, a timer zone, and a keypad zone ". The specification teaches on page 6 and 9, paragraph [0064], paragraph [0070] and paragraph [0085]-[0087] which applicant indicated or a masking zone and a timer zone. The specification does not disclose a non-masking zone and a keypad zone as claimed. The examiner has interpreted the claim as including one or more of a sound masking zone and a timer zone. Appropriate correction is required.

Double Patenting

5. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

6. Claims 108-119 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 108-119 of copending Application No. 10/618,635. Although the conflicting claims are not identical, they are not patentably distinct from each other because the instant Claims 108-119 falls entirely within the scope of Claims 23-36, 41-51 and 57-61, 64-69 of application no. 10/618,635 or, in other words the instant Claims 108-119 are obvious over Claims 23-36, 41-51 and 57-61, 64-69 of application no. 10/618,635. The instant Claims 46-85 is a broader version of Claims 23-36, 41-51 and 57-61, 64-69 of application no. 10/618,635 and is therefore obvious over Claims 23-36, 41-51 and 57-61, 64-69 of application no. 10/618,635. This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

7. Claims 108-119 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over Claims 108-119 of copending Application No. 09/791,802. Although the conflicting claims are not identical, they are not patentably distinct from each other because Claims 46-86 of application no. 09/791,802 falls entirely within the scope of the instant Claims 108-119 or, in other words Claims 46-86 of application no. 09/791,802 are obvious over the instant Claims 108-119. The instant Claims 108-119 of application no. 10/646,743 is a broader version of the Claims 46-86 of application no. 09/791,802 and is therefore obvious over the Claims 46-86 of application no. 09/791,802. This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 108-118 are rejected under 35 U.S.C. 103(a) as being unpatentable over Orfield (US PAT. 4,319,088) in view of Shdema et al (US 2002/0072816).

Consider claim 108 Orfield teaches a sound masking system for masking sound in a physical environment, said sound masking system comprising (see fig.3):

a communication network for said physical environment (see fig.3);
a plurality of sound masking units (see fig.3(14,16)), at least some of said sound masking units including a circuit (see figs.1-2) configured for a sound masking signal generator(20) and a communication interface(by jack and potentiometers) for coupling to said communication network for receiving a plurality of control signals over said communication network including a masking volume signal and a masking frequency signal(see fig.1,2), and said sound masking signal generator being responsive to said masking volume signal and said sound masking frequency signal for generating a sound masking output signal, said sound masking output signal having a volume derived from said masking volume signal and a frequency characteristic derived from said sound masking frequency signal(see figs 1-2); a control unit (14) configured to generate said control signals including said masking volume signal(46) and said masking frequency signal(48 and see col.3 line 15-col 4 line 62); but Orfield does not expressly disclose a digital processor receiving and transmitting control signals over said communication network; and a control unit, said control unit having a communication interface for coupling to said communication network for transmitting said control signals to selectively control operation of said plurality of sound masking units.

Shdema discloses a digital processor receiving and transmitting control signals over said communication network (see figs 1-5) and an audio speaker system network comprising a plurality of speaker units including a communication interface for coupling said speaker units(114) (i.e. sound masking units) to said communication network for

receiving and transmitting control signals over said communication network (Fig. 1; page 3, [0028]-[0030]); and a control unit(see fig.2 102), said control unit having a network interface for coupling said control unit to said communication network for transmitting control signals over said communication network to said speaker units (i.e. sound masking units), and said control signals including signals for selectively controlling the operation of said sound masking units (Fig. 1 and see page 4 [0032]-[0045]) in order to allow an operator to remotely control the plurality of speaker units, which provide ease of adjusting a plurality of parameters such as volume, speaker equalization, and sound delay at a desired time; to receive status and/or control information from the speaker unit; and to provide more flexibility in a speaker system network by allowing an operator to transmit a message to only selected speakers in a network, or in multiple networks or zones, rather than all speakers in a network or zone. Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Orfield with the teaching of Shdema to utilize a audio system for use in a speaker network system (such as the speaker network system of Orfield) comprising: a control unit to transmit control data (audio data does not need to be transmitted to the speaker unit because the speaker unit of Orfield comprising a sound generator which provide an audio data to a digital signal processor) to a plurality of speaker units (i.e. sound masking units), wherein the speaker unit comprising a receiver for receiving the control data and a transmitter for transmitting status and/or control information from the sound masking unit to the control unit in order to allow an operator to remotely control the plurality of speaker units, which provide ease of

adjusting a plurality of parameters such as volume, speaker equalization, and sound delay at a desired time; to receive status and/or control information from the speaker unit; and to provide more flexibility in a speaker system network by allowing an operator to transmit a message to only selected speakers in a network, or in multiple networks or zones, rather than all speakers in a network or zone. Therefore, Orfield as modified does not need to make adjustments through potentiometers, which are on the sound masking unit located in the ceiling, it can be adjusted by utilizing the control unit which allow an operator to make adjustments remotely to only the selected sound masking units in the network, or in multiple networks or zones, rather than all speakers in a network or zone for more convenience for user in order to using processor and software and control unit to control the mask network.

Consider claim 109 Orfield as modified by Shdema teaches the sound masking system, wherein said sound masking unit includes an address component for recognizing control signals intended for the sound masking unit associated with said address component(in Shdema, see figs 1-4 and see page 9[0104]-[0108]).

Consider claim 110, Orfield discloses the plurality of sound masking units are associated with a plurality of sound masking zones, each sound masking unit being associated with one of the plurality of sound masking zones, and said sound masking units providing sound masking for the associated sound masking zone independently of said other sound masking zones (see figs 1-4 and col. 4 line 65-col. 5 line 67).

Consider claim 111 Orfield as modified discloses the sound masking system, wherein said sound masking units associated with each of said sound masking zones

provide a sound masking output tailored for said associated sound masking zone and said sound masking output being based on said masking volume and said masking frequency signals (see figs 1-4 and col. 4 line 65-col. 5 line 67).

Consider claim 112 Orifield teaches that the sound masking system, further comprising a plurality of zones, and one or more of said sound masking units being configured for one or more of said zones (see figs 1-4 and col. 4 line 65-col. 5 line 67).

Consider claim 113, as best understood with regards to the 112, first paragraph problem mentioned above, Orifield as modified discloses the sound masking system, wherein said zones includes one or more of a sound masking zone, a timer zone, and a keypad zone (see figs 1-4 and col. 4 line 65-col. 5 line 67).

Consider claim 114 Orifield teaches a sound masking system for controlling the ambient noise in a physical environment, said sound masking system comprising (see figs. 3-4):

- a communication network for said physical environment (see figs. 3-4);

- a plurality of sound masking units(14,16), at least some of said sound masking units including a sound masking generator (20) comprising a circuit(see figs.1-2) configured to generate a sound masking signal and a communication interface (by jack and potentiometers) for coupling to said communication network for receiving one or more control signals over said communication network including a masking volume signal and a masking frequency signal, and said sound masking generator being responsive to said masking volume signal and said sound masking frequency signal for generating said sound masking signal(see figs 1-2); a control unit (14) configured to generate said

one or more control signals including said masking volume signal (46) and said masking frequency signal(48 and see col.3 line 15-col 4 line 62); and a plurality of zones, and one or more of said sound masking units being configured for one or more of said plurality of zones(see figs 1-4 and col. 4 line 65-col. 5 line 67); but Orfield does not expressly disclose a processor receiving and transmitting control signals over said communication network; and a control unit said control unit having a communication interface for coupling to said communication network for transmitting said one or more control signals to selectively control operation of said plurality of sound masking units.

Shdema discloses a processor receiving and transmitting control signals over said communication network (see figs 1-5) and an audio speaker system network comprising a plurality of speaker units including a communication interface for coupling said speaker units(114) (i.e. sound masking units) to said communication network for receiving and transmitting control signals over said communication network (Fig. 1; page 3, [0028]-[0030]); and a control unit(see fig.2 102), said control unit having a network interface for coupling said control unit to said communication network for transmitting control signals over said communication network to said speaker units (i.e. sound masking units), and said control signals including signals for selectively controlling the operation of said sound masking units (Fig. 1 and see page 4 [0032]-[0045]) in order to allow an operator to remotely control the plurality of speaker units, which provide ease of adjusting a plurality of parameters such as volume, speaker equalization, and sound delay at a desired time; to receive status and/or control information from the speaker unit; and to provide more flexibility in a speaker system

network by allowing an operator to transmit a message to only selected speakers in a network, or in multiple networks or zones, rather than all speakers in a network or zone. Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Orfield with the teaching of Shdema to utilize a audio system for use in a speaker network system (such as the speaker network system of Orfield) comprising: a control unit to transmit control data (audio data does not need to be transmitted to the speaker unit because the speaker unit of Orfield comprising a sound generator which provide an audio data to a digital signal processor) to a plurality of speaker units (i.e. sound masking units), wherein the speaker unit comprising a receiver for receiving the control data and a transmitter for transmitting status and/or control information from the sound masking unit to the control unit in order to allow an operator to remotely control the plurality of speaker units, which provide ease of adjusting a plurality of parameters such as volume, speaker equalization, and sound delay at a desired time; to receive status and/or control information from the speaker unit; and to provide more flexibility in a speaker system network by allowing an operator to transmit a message to only selected speakers in a network, or in multiple networks or zones, rather than all speakers in a network or zone. Therefore, Orfield as modified does not need to make adjustments through potentiometers, which are on the sound masking unit located in the ceiling, it can be adjusted by utilizing the control unit which allow an operator to make adjustments remotely to only the selected sound masking units in the network, or in multiple networks or zones, rather than all speakers in a

network or zone for more convenience for user in order to using processor and software and control unit to control the mask network.

Consider claim 115, as best understood with regards to the 112, first paragraph problem mentioned above, Orfield as modified discloses the sound masking system, wherein said zones include one or more of a sound masking zone, a non-masking zone, a timer zone, and a keypad zone (see figs 1-4 and col. 4 line 65-col. 5 line 67).

Consider claim 116 Orfield teaches a networkable sound masking device comprising: an interface configured to interfacing to a network (see figs 3-4); a circuit (see figs 1-2) configured to receive one or more control signals from said interface (by jack and potentiometers), said one or more control signals being intended for the networkable sound masking device and said one or more control signals (46,48) comprising a masking volume signal (46) and a masking frequency signal(48 and see col.3 line 15-col 4 line 62); said circuit being configured to generate a sound masking signal in response to said masking frequency signal; and an output stage configured to output said sound masking signal(see figs 1-4 and col. 4 line 65-col. 5 line 67) but Orfield does not expressly discloses a processor receiving and transmitting control signals over said communication network.

However, Shdema discloses a processor receiving and transmitting control signals over said communication network (see figs 1-5 and page 4 [0039]-[0044]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Shdema into Orfield to Provide more efficiency mask system by using a processor and software control.

Consider claims 117-118 Orfield as modified by Shdema teaches the networkable sound masking device, wherein said interface includes an address component configured to recognize said one or more control signals intended for the networkable sound masking device(in Shdema, see figs 1-4 and see page 9[0104]-[0108]); and the networkable sound masking device, wherein said output stage comprises an amplifier and said processor being configured to control said output stage in response to said masking volume signal(in Shdema, see figs 1-5 and page 4 [0039]-[0044]).

10. Claim 119 is rejected under 35 U.S.C. 103(a) as being unpatentable over Orfield (US PAT. 4,319,088) as modified by Shdema et al (US 2002/0072816) as applied to claim 116 above, and further in view of Ritter (US PAT. 4,686,693).

Consider claim 119 Orfield and Farinelli do not explicitly teach the networkable sound masking device, wherein said sound masking module comprises a random noise generator having an output coupled to an equalizer stage, and said processor being configured to control said equalizer stage in response to said masking frequency signal.

However, Ritter teach the networkable sound masking device, wherein said sound masking module comprises a random noise generator having an output coupled to an equalizer stage, and said processor being configured to control said equalizer stage in response to said masking frequency signal (see fig.1 and see col. 4 line 23-52).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Ritter into the teaching of Orfield

and Shdema to provide the optimum adjustment of individual zone masking devices. Fine volume changes are easily made to meet the individual acoustic demands of the masking zone and the personal preferences of persons therein. The ease of adjustment makes it quite easy to slowly change the masking signal volume as needed, whereby the occupants of the masked area are not distracted by a sudden increase or decrease in background masking noise.

Response to Arguments

11. Applicant's arguments with respect to claims 108-119 have been considered but are moot in view of the new ground(s) of rejection.

Regarding applicant argued Double Patenting (see the remarks page 5, 3rd and 4th paragraph). The examiner responds that the applicant does not filed the terminal disclaimer, therefore the Double Patenting will be maintained.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Frecska (US PAT. 6,329,908) is cited to show other related networked sound masking system.

13. Any response to this action should be mailed to:

Mail Stop ____ (explanation, e.g., Amendment or After-final, etc.)

Commissioner for Patents

P.O. Box 1450
Alexandria, VA 22313-1450
Facsimile responses should be faxed to:
(571) 273-8300
Hand-delivered responses should be brought to:
Customer Service Window
Randolph Building
401 Dulany Street
Alexandria, VA 22314

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lao, Lun-See whose telephone number is (571) 272-7501. The examiner can normally be reached on Monday-Friday from 8:00 to 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivian Chin, can be reached on (571) 272-7848.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 whose telephone number is (571) 272-2600.

Lao, Lun-See
/LUN-SEE LAO/
Examiner, Art Unit 2614
Patent Examiner
US Patent and Trademark Office
Knox
571-272-7501
Date 11-20-2008

/Ping Lee/
Primary Examiner, Art Unit 2614